

California Farmer

134 YEARS OF SERVICE TO AGRICULTURE

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Sheep breeder Marian Thormahlen with Don Quixote, a male lamb taken from Santa Cruz Island by the American Minor Breeds Conservancy.

DON ERTTEL

The Lost Sheep Of Santa Cruz

What can a 17th-century sheep offer 20th-century breeders?

When a domestic animal such as the cow, horse, pig, or sheep has been cast off in the wilderness to fend for itself, it either adjusts to its environment or perishes. Nature is a hard taskmistress, and only the fittest survive.

Such was the case with California's feral sheep. Tradition has it that early Spanish explorers cruising off the shores of California left sheep on some of the larger offshore islands as a possible food supply. According to one report, the sheep were referred to as early as the middle 1700s.

Later, in the mid-1800s, pioneer ranchers began to raise sheep and cattle on some of these islands. They tried to domesticate the wild sheep by bringing in some tame ones, but things worked out the other way—the tame sheep went wild. However, from time to time other breeds did mix with the feral sheep.

When the sheep became too prolific, their island homes began to suffer and became denuded from overgrazing. The ranchers would then try to catch the animals and sell them on the mainland for meat so the islands could recover. They never quite caught all of the animals, though; the fastest and the wildest escaped.

After years of fending for themselves in a harsh environment, the feral sheep no longer bore a close resemblance to any of the domestic breeds. Natural selection had caused rapid genetic change until an entirely new breed developed: Imagine sheep that can climb like goats, jump like deer, and out-sprint horses. Besides that, many seem to have developed rattails, which helped them keep free of parasites. This unique breed could possess both scientific and economic value—if it survives.

Santa Cruz Island, the largest of the Channel Islands, seems to hold the last remaining feral sheep, although it's thought that their numbers are fairly low now. Oceanic islands are especially prone to serious ecological damage from feral animals, particularly sheep, and the island biological system on Santa Cruz came close to breaking down completely. Fortunately for the island, the Nature Conservancy obtained an easement in 1978, leading to eventual ownership of 90 percent of the island. Nature Conservancy volunteers then began fencing off designated areas to see if the pastureland would recover. They found

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LOST SHEEP

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that where the areas were protected from the sheep, the vegetation started to recover dramatically.

Because of their centuries-long isolation from the mainland, Santa Cruz and the other Channel Islands became a laboratory where nature produced a host of remarkable plant and animal species. Scientists have recorded more than three dozen endemic plant species and subspecies that occur nowhere else on Earth, with eight of these found only on Santa Cruz. To preserve these, everyone agreed that the sheep had to go.

Fortunately for the sheep, the American Minor Breeds Conservancy (AMBC), a group dedicated to preserving minority breeds of livestock to save a pool of genetic variation for future breeders, got word of this remarkable new variety of sheep and made an effort to obtain some. Several members of the AMBC, with the cooperation of Peter Schuyler, director of the Nature Conservancy's Santa Cruz Project, went to the island last January in an attempt to catch some of the lambs. What were left of the feral sheep lived in a no-man's-land between the part owned by the Nature Conservancy and the remaining 10 percent—a privately held ranch.

As the sheep run so fast, catching the adults could have proved very difficult, so it was decided to take lambs instead. Besides, when away from the adults, the lambs would be easier to domesticate. However, at three to five weeks of age, the lambs also proved quite agile. After five days of being chased over rugged terrain, only 12 were caught—those that made mistakes and became cornered in tight places. The AMBC divided them into five small breeding groups and placed them with members offering homes to the orphans. (Three of these lambs went to Marian Thormahlen of Georgetown, who was mentioned in an article on endangered breeds in the May 17, 1986, issue of *California Farmer*.)

According to Phil Hedrick, a geneticist and population biologist at the University of Kansas who assisted in the roundup, the breed's best genetic traits are its good mothering instincts and its hardiness. "They have no birthing problems and a high lamb survivability rate," he said. "They also appear to have a resistance to pathogens. However, we will see if this is true after a year of raising them side by side with domestic sheep." Most require no docking of the tail (at least those with the rattails), and

since they can live on rather poor forage, they are less expensive to raise.

Although the sheep's genetic origin remains a mystery, a Merino-Rambouillet mixture has been mentioned as a possibility. Others contend that the sturdy churro breed—the dominant strain of the Navajo sheep—might also be present. Tests are being made on the ewes' wool to determine its properties.

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With only five days on the island and little chance to observe the sheep, the AMBC members could not make too many observations about the animals. They did, however, note that a large percentage had only fine hair on their undersides and a generally naked face.

A more thorough report made in the 1950s by Earl Warren Jr., son of the late Supreme Court chief justice, claimed the sheep were of a fine-wooled stock, had a high lamb drop, and were remarkably hardy and vigorous. Warren's 50-page paper, titled *The Agriculture of Santa Cruz Island*, is in the California State Library. In it Warren also mentions that one of the drawbacks to efficient breeding of the island sheep was the general inability of domestic rams to catch the island ewes.

Later, in an August 1958 article written for *National Geographic*, Warren mentions watching a roundup of the feral sheep. Some of the rams had spectacular 4-foot-wide horns with more than two complete curls and fleece almost as fine as cashmere. He also claims to have seen a ewe and two lambs easily scale a 5-foot fence. Some of the animals were clocked running at speeds of 30 mph.

Geneticist Phil Hedrick has drawn up a proposal for a breeding plan to assure that the breed's best traits will be preserved. The AMBC, however, does the actual registration of the animals (now called the Santa Cruz Island breed) and oversees the breeding program.

Twelve animals don't make up a very large genetic pool, and the AMBC hopes to have another try at securing more lambs shortly after the next breeding season. It seems likely that any creatures that can survive fair weather and foul, poor forage, drought, and many efforts to exterminate them will have something worth preserving. ■

An Island in Time

Santa Cruz Island, which lies 24 miles off the coast from Santa Barbara, is one of the five Channel Islands designated by Congress in 1980 as the Channel Islands National Park and National Marine Sanctuary. It is the largest and most diverse of the islands, with steep cliffs, gigantic sea caves, coves, and sandy beaches.

The Nature Conservancy now controls the western nine-tenths of the island, and at this time the National Park Service is negotiating to purchase the remaining eastern section, which is called Scorpion Ranch. According to Cindy Neilsen of the Park Service, the land will eventually have public access for such low-impact activities as hiking, boating, and the use

of some beaches.

Public transportation to the island during the warm season is offered by Channel Island Adventures (with air flights to the western part of the island) and by Island Packers (with boat excursions to both Scorpion Ranch at the eastern end and Pelican Bay on the west).

For more information on the Channel Islands, contact the National Park Service, 1901 Spinnaker Dr., Ventura, CA 93001; (805) 644-8157.

For more information on the Santa Cruz Island sheep and the American Minor Breeds Conservancy, contact the AMBC at Box 477, Pittsboro, NC 27312.

—Grace Ertel